

Curriculum Vitae

Brant M. Johnson

EDUCATION:

Aug. 1975
June 1974
June 1971

THE UNIVERSITY OF TEXAS AT AUSTIN, Austin, Texas

Ph.D. in Physics, "Oxygen Beam-Gas Auger Electron Emission."
M.A. in Physics, "L Auger Electrons & L X-Rays from Multiply-Ionized Argon."
B.S. in Physics

EMPLOYMENT:

1993 to pres.

BROOKHAVEN NATIONAL LABORATORY (BNL), Upton, New York

Physicist in the Physics (1999 to present) and RHIC (1993-1999) Departments;
Relativistic heavy-ion physics, spin physics, and ion source development. Roles
in PHENIX Experiment at RHIC include Scientific Secretary of Institutional Board
and Executive Council, Manager of the PHENIX Office, Publications Coordinator
and corresponding author for all physics publications, Coordinator of reviews and
meetings, and Shift Coordinator. RHIC Liaison for PHENIX (1993-1999).

1984-1993

Physicist in the Department of Applied Science; Synchrotron-radiation based
atomic physics, including inner-shell photo-ionization and trapping of multiply-
charged ions, charge exchange, photon scattering, and double ionization of He.
Research Associate, Assistant Physicist, Associate Physicist, and Physicist in the
Physics Department; ion-atom collisions and atomic processes in high-temperature
plasmas, including beam-foil spectroscopy, x-ray production, charge exchange,
neutralization of negative ion beams, and beam physics.

EDITORIAL CONSULTING: AMERICAN PHYSICAL SOCIETY, Editorial Offices, Ridge NY.

1998-pres. Associate Editor, Physical Review Special Topics: Accelerators and Beams
1993-pres. Associate Editor, Physical Review E (plasma and beam physics)
1988-pres. Associate Editor, Physical Review Letters (plasma and beams, AMO support)
1990-1994 Associate Editor, Physical Review A (Quantum Optics)
1990 Half-time position for six-months at APS Editorial Offices, Ridge, NY
1987-1988 Acting Editor, Physical Review Letters (Atomic, Molecular, and Optical physics)

VISITING AND GUEST POSITIONS

2004,06,08 Topic Editor (Nuclear Physics) for CAARI Conferences, Ft. Worth, TX
1986-1993 Guest Scientist, State University of New York at Stony Brook, Stony Brook, NY
1984 German Academic Exchange Service (DAAD) Study Visit, Heidelberg, Germany
1980 Visiting Scientist, TRIUMF Laboratory, Vancouver, British Columbia, Canada
1977 Visiting Scientist, Oak Ridge National Laboratory, Oak Ridge, Tennessee
1977 Visiting Scientist, Lawrence Berkeley National Laboratory, Berkeley, California.

COMMITTEE, COUNCIL, AND BOARD MEMBERSHIPS

2008 Member, Selection Committee of NPA Young Scientist Award at QM2008.
2006-pres. Member, now Chair, ESS&H Committee, BNL Physics Department
2002-2009 Member, now Chair, BNL Brookhaven Lecture Committee
2001-2009 Member, former Chair, RHIC & AGS Users Executive Committee
2007-pres. Member, now Co-Chair, Steering Comm. of National Users' Facility Organization
2006-pres. Member, Brookhaven Director's Safety Committee
2007-pres. Member, Brookhaven Personal Protective Equipment Committee
2003-pres. Member, RHIC Outreach and BNL Public Relations Group
1994-pres. Scientific Secretary, PHENIX Institutional Board & PHENIX Executive Council
2007-2008 Member, Brookhaven 24/7 – Safety and Wellbeing Committee
1990-pres. Charter Member, American Physical Society Ridge Editorial Council
2001-2006 Chair, PHENIX Sambamurti Award Nomination Committee
2003-2006 Member, BNL Internal Communications & Involvement Working Group
2001-2002 Member, Colloquium Committee, Physics Department, BNL
1993-1996 Member, American Physical Society Task Force on Electronic Publishing
1992-1995 Member, Computer Services Advisory Committee, APS Ridge Editorial Office
1989-1992 Representative, Special Interest Group on AMO Science to NSLS UEC.
1991-1992 Chair, NSLS Subcommittee on Beam Line Operation & Safety Awareness
1985-1987 Member, DAMOP Program Committee, American Physical Society
1983-1984 Member, Colloquium Committee, Physics Department, BNL

ORAL PRESENTATIONS, COLLOQUIA, EDUCATION, AND OUTREACH

Recent Invited Talks: *Modern Physics, Lunch w/ Pros*, Lusher High School, Oct. 8. 2008, New Orleans, La
Challenges to Communication with Users, NUFO Meeting, Apr. 25, 2008, PNNL, WA
Future Physics Capabilities of RHIC, Oct. 24, 2006, GHP06, Nashville, TN
Discovering the Perfect Fluid at RHIC, Oct. 26, 2006, DNP06, Nashville, TN
Have we seen a new state of matter at RHIC? Oct. 15, 2004, CAARI, Ft. Worth, TX

Numerous other talks, seminars, colloquia, and invited papers presented since 1972.

Chair and organizer of many invited paper sessions, workshops, and meetings.

RHIC Outreach Lecturer, PHENIX Tour Coordinator, and RHIC/PHENIX Tour Guide (1993-pres.).

Yearly lecturer (1980-pres.) on "Modern Physics" in the BNL Summer Semester Science Program.

Research supervisor and mentor (1980-pres.) for Univ. students (7), H.S. teachers (4), H.S. students (9).

Principal Investigator, DOE Educational Grant: "Teaching and Learning Nuclear Science" (1998-2006)

Supervisor of Research Associate Dr. Do-Hyung Lee (1990-1993).

Mentor and Lecturer (1991-1992), DOE High School Honors Program, BNL.

Visiting Professor (1989), Latin American School of Physics, Cuernavaca, Mexico.

Taught (1981) Modern Physics course in BNL Semester Program.

Experience in Atomic and Plasma Physics research at BNL (1977-pres.):

From 1977-1989 and 1989-1992, respectively, I was Co-Principal Investigator and then Principal Investigator of the DOE-sponsored research project "Atomic Physics Research". In 1984 our focus shifted from ion-atom collisions and atomic processes in high temperature plasmas (based mostly at the BNL dual MP tandem van de Graff facility) to atomic physics with synchrotron radiation at the National Synchrotron Light Source (NSLS).

Experience in Nuclear and Particle Physics research at BNL (1992-pres.):

From 1992-1999 I served as RHIC Liaison for PHENIX (one of two large detectors at the Relativistic Heavy Ion Collider and a large collaboration of over 500 scientists and engineers from now 67 institutions in 13 countries). In 1994 I became the founding Scientific Secretary of the PHENIX Executive Council and Institutional Board. Serving continuously in this role, I was instrumental in the development of the PHENIX Bylaws and Publication Policies and their periodic revisions. I am the PHENIX Publications Coordinator and Corresponding Author on all PHENIX physics manuscripts submitted to peer-review journals. I have also served as principal organizer and coordinator of PHENIX cost and schedule reviews, monthly "Core Weeks," and periodic Collaboration Meetings.

Experience in User Groups and the National User Facility Organization (1989-pres.):

From 1989-1992 I served on the NSLS Users' Executive Committee (UEC). Since then I have functioned as principal liaison and now the official BNL host for the over 550 PHENIX collaborators. From 2004-2007 I was Chair-Elect, Chair, and then Past-Chair of the RHIC & AGS UEC, on which I continue to serve as an elected member.. I helped establish and develop the BNL Guest, Users, and Visitors Center and I now serve as elected Co-Chair on the Steering Committee of the National User Facility Organization (NUFO). In these roles I represent users and communicate concerns to facility and laboratory management, to funding agencies, to congressional and science committee staff members, to the Office of Science and Technology Policy, and to the Office of Management and Budget.

Experience as an APS Editorial Consultant (1987-pres.):

Since 1987 I have worked as an Acting and then Associate Editor for PRL, PRA, PRE, and PRSTAB, handling manuscript submissions in atomic, molecular, and optical (AMO), plasma, and beam physics. Since 1990 (when I worked at Ridge half-time for six months), I have served as a continuing member of the Ridge Editorial Council (REC) since its inception.

Management and Administrative Experience (1977-pres.):

From 1977-89 I co-led our atomic physics research group and from 1989-92 I led the group as Principal Investigator. From 1992-99 I served as RHIC Liaison for PHENIX with a job description of being relied upon to "Speak with authority on issues of schedule and budgets" during the \$100 million PHENIX and \$500 million RHIC construction projects. I was formally recognized in the PHENIX management structure and worked closely with the construction managers of both RHIC and PHENIX. Since 1999 I have served as the Manager of the PHENIX Office to oversee the staff members who support the PHENIX Collaboration and its users, the PHENIX group in the BNL Physics Department, and PHENIX Operations and Upgrades.

147 Publications in 17 journals covering eight fields of basic and applied physics research

The table below summarizes the peer-reviewed publications that I have authored from 1972 through October 2008. For the atomic, plasma, and beam physics papers the order of authors roughly reflects the relative involvement of each author in data taking, analysis, and paper writing; however, in many cases (especially for the beam physics papers) I have functioned as lead author in preparing the manuscripts and interacting with the journals. The nuclear and high-energy (particles and fields) papers are from the PHENIX Collaboration with alphabetical author lists typically in the range of 320 to 450. Each author has contributed significantly to detector subsystem construction, operation, data taking, electronics, or computing, but typically only 7 to 10 authors are directly involved in the data analysis and paper preparation process. In all 74 cases I was the corresponding author and thereby responsible for the final editing, submission to the journals, editing manuscript revisions, and interacting with editors and referees.

	Peer-Reviewed Publications		Fundamental (Basic) Physics					Applied Physics		
	Field Acronym:		NP-	PF-	AC-	AP-	AS-	BP-	DD-	CM-
	Field Name:		Nuclear Physics	Particles & Fields	Atomic Collisions	Atomic Processes HTplasma	Atom.Phys. Synchr. Radiation	Beam Physics	Detector Develop.	Cond. Matter
Journal	Totals									
Totals:	147	61	13	45	13	5	7	2	1	
PRL Phys. Rev. Lett.	50	37	8	4		1				
PRA Phys. Rev. A	23			18	2	3				
PRC Phys. Rev. C	21	21								
PRD Phys. Rev. D	5		5							
PLA Phys. Lett. A	19			12	5		1		1	
PLB Phys. Lett. B	2	2								
APL Appl. Phys. Lett.	2			1			1			
NPA Nucl. Phys. A	1	1								
JPB Journ. Phys. B: AMP	7			6		1				
ZPA Z. Physik A	3			3						
PSc Phys. Scripta	3				3					
ApJ Astrophys. Journal	1				1					
JAP Journ. Appl. Phys.	1						1			
RSI Rev. Sci. Instrum.	4				2		2			
NIM Nucl.Instrum.Methods A	3						1	2		
Andt At. & Nucl. Data Tables	1			1						
LPB Laser & Part. Beam	1						1			

==== (60 NP) Nuclear Physics: Relativistic Heavy Ion Collisions

- NP-1. K. Adcox *et al.* [PHENIX Collaboration], Centrality dependence of charged particle multiplicity in Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Rev. Lett. **86**, 3500-3505 (2001).
- NP-2. K. Adcox *et al.* [PHENIX Collaboration], Measurement of the mid-rapidity transverse energy distribution from $\sqrt{s_{NN}} = 130$ GeV Au+Au collisions at RHIC, Phys. Rev. Lett. **87**, 052301 (2001).
- NP-3. K. Adcox *et al.* [PHENIX Collaboration], Suppression of hadrons with large transverse momentum in central Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Rev. Lett. **88**, 022301 (2002).
- NP-4. K. Adcox *et al.* [PHENIX Collaboration], Transverse mass dependence of two pion correlations in Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Rev. Lett. **88**, 192302 (2002).
- NP-5. K. Adcox *et al.* [PHENIX Collaboration], Measurement of single electrons and implications for charm production in Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Rev. Lett. **88**, 192303 (2002).
- NP-6. K. Adcox *et al.* [PHENIX Collaboration], Centrality dependence of π^+ / π^- , K^+ / K^- , p and anti- p production from $\sqrt{s_{NN}} = 130$ GeV Au+Au collisions at RHIC, Phys. Rev. Lett. **88**, 242301 (2002).
- NP-7. K. Adcox *et al.* [PHENIX Collaboration], Event-by-event fluctuations in mean p_T and mean e_T in $\sqrt{s_{NN}} = 130$ GeV Au+Au collisions, Phys. Rev. C **66**, 024901 (2002).
- NP-8. K. Adcox *et al.* [PHENIX Collaboration], Net charge fluctuations in Au+Au interactions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Rev. Lett. **89**, 082301 (2002).
- NP-9. K. Adcox *et al.* [PHENIX Collaboration], Measurement of the Lambda and anti-Lambda particles in Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Rev. Lett. **89**, 092302 (2002).

- NP-10. K. Adcox *et al.* [PHENIX Collaboration], Flow measurements via two particle azimuthal correlations in Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Rev. Lett. **89**, 212301 (2002).
- NP-11. K. Adcox *et al.* [PHENIX Collaboration], Centrality dependence of the high p_T charged hadron suppression in Au+Au collisions at $\sqrt{s_{NN}} = 130$ GeV, Phys. Lett. B **561**, 82-92 (2003).
- NP-12. S.S. Adler *et al.* [PHENIX Collaboration], Suppressed π^0 production at large transverse momentum in central Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **91**, 072301 (2003).
- NP-13. S.S. Adler *et al.* [PHENIX Collaboration], Absence of suppression in particle production at large transverse momentum in $\sqrt{s_{NN}} = 200$ GeV d + Au collisions, Phys. Rev. Lett. **91**, 072303 (2003).
- NP-14. S.S. Adler *et al.* [PHENIX Collaboration], Scaling properties of proton and anti-proton production in $\sqrt{s_{NN}} = 200$ GeV Au+Au collisions, Phys. Rev. Lett. **91**, 172301 (2003).
- NP-15. S.S. Adler *et al.* [PHENIX Collaboration], Elliptic flow of identified hadrons in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **91**, 182301 (2003).
- NP-16. S.S. Adler *et al.* [PHENIX Collaboration], J/ψ production in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV at the Relativistic Heavy Ion Collider, Phys. Rev. C **69**, 014901 (2004).
- NP-17. K. Adcox *et al.* [PHENIX Collaboration], Single identified hadron spectra from $\sqrt{s_{NN}} = 130$ GeV Au+Au collisions, Phys. Rev. C **69**, 024904 (2004).
- NP-18. S.S. Adler *et al.* [PHENIX Collaboration], Identified charged particle spectra and yields in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. C **69**, 034909 (2004).
- NP-19. S.S. Adler *et al.* [PHENIX Collaboration], High p_T charged hadron suppression in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. C **69**, 034910 (2004).
- NP-20. S.S. Adler *et al.* [PHENIX Collaboration], Measurement of nonrandom event-by-event fluctuations of average transverse momentum in $\sqrt{s_{NN}} = 200$ GeV Au+Au and p+p collisions, Phys. Rev. Lett. **93**, 092301 (2004).
- NP-21. S.S. Adler *et al.* [PHENIX Collaboration], Bose-Einstein correlations of charged pion pairs in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **93**, 152302 (2004).
- NP-22. S.S. Adler *et al.* [PHENIX Collaboration], Centrality Dependence of Charm Production from Single Electrons Measurement in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **94**, 082301 (2005).
- NP-23. S.S. Adler *et al.* [PHENIX Collaboration], Nuclear modification factors for hadrons at forward and backward rapidities in deuteron-gold collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **94**, 082302 (2005).
- NP-24. S.S. Adler *et al.* [PHENIX Collaboration], Systematic studies of the centrality and $\sqrt{s_{NN}}$ dependence of the $dE_T/d\eta$ and $dN_{ch}/d\eta$ in heavy ion collisions at mid-rapidity. Phys. Rev. C **71**, 034908 (2005), Erratum-*ibid*, 049901 (2005).
- NP-25. S.S. Adler *et al.* [PHENIX Collaboration], Deuteron and antideuteron production in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **94**, 122302 (2005).
- NP-26. S.S. Adler *et al.* [PHENIX Collaboration], Jetstructure of baryon excess in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. C **71**, 051902 (2005).
- NP-27. K. Adcox *et al.* [PHENIX Collaboration], Formation of dense partonic matter in relativistic nucleus-nucleus collisions at RHIC, experimental evaluation by the PHENIX collaboration, Nucl. Phys. A **575**, 184 (2005).
- NP-28. S.S. Adler *et al.* [PHENIX Collaboration], Centrality dependence of direct photon production in $\sqrt{s_{NN}} = 200$ GeV Au+Au collisions, Phys. Rev. Lett. **94**, 232301 (2005).
- NP-29. S.S. Adler *et al.* [PHENIX Collaboration], Saturation of azimuthal anisotropy in Au+Au collisions at $\sqrt{s_{NN}} = 62$ GeV to 200 GeV, Phys. Rev. Lett. **94**, 232302 (2005).
- NP-30. S.S. Adler *et al.* [PHENIX Collaboration], Production of phi mesons at mid-rapidity in $\sqrt{s_{NN}} = 200$ GeV Au+Au collisions at RHIC, Phys. Rev. C **72**, 014903 (2005).
- NP-31. S.S. Adler *et al.* [PHENIX Collaboration], Measurement of single electron event anisotropy in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. C **72**, 024901 (2005).
- NP-32. S.S. Adler *et al.* [PHENIX Collaboration], J/ψ production and nuclear effects for d + Au and p+p collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett., **96**, 012304 (2006).

- NP-33. S.S. Adler *et al.* [PHENIX Collaboration], Nuclear modification of electron spectra and implications for heavy quark energy loss in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett., **96**, 032301 (2006).
- NP-34. S.S. Adler *et al.* [PHENIX Collaboration], Measurement of identified π^0 and inclusive photon v_2 and implication to the direct photon production in $\sqrt{s_{NN}} = 200$ -GeV Au+Au collisions, Phys. Rev. Lett. **96**, 032302 (2006).
- NP-35. S.S. Adler *et al.* [PHENIX Collaboration], Jetstructure from dihadron correlations in d+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. C **73**, 054903 (2006).
- NP-36. S.S. Adler *et al.* [PHENIX Collaboration], Nuclear modification of electron spectra and implications for heavy quark energy loss in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **96**, 202301 (2006).
- NP-37. S.S. Adler *et al.* [PHENIX Collaboration], Nuclear effects on hadron production in d+Au and p+p collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. C **74**, 024904 (2006).
- NP-38. S. S. Adler et.al., [PHENIX Collaboration], Common suppression pattern of η and π^0 mesons at high transverse momentum in Au + Au collisions at $\sqrt{s_{NN}}=200$ GeV, Phys. Rev. Lett. **96**, 202301 (2006).
- NP-39. S.S. Adler *et.al* [PHENIX Collaboration], Azimuthal angle correlations for rapidity separated hadron pairs in d+Au collisions at $\sqrt{s_{NN}} = 200$ GeV, Phys. Rev. Lett. **96**, 222301 (2006).
- NP-40. S.S. Adler *et al.* [PHENIX Collaboration], High transverse momentum η meson production in p+p, d+Au, and Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. C **75**, 024909 (2007).
- NP-41. S. Afanasiev *et al.* [PHENIX Collaboration], Elliptic Flow for ϕ Mesons and (Anti)deuterons in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. Lett. **99**, 052301 (2007).
- NP-42. S.S. Adler *et al.* [PHENIX Collaboration], Evidence for a Long-Range Component in the Pion Emission Source in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. Lett. **98**, 132301 (2007).
- NP-43. A. Adare *et al.* [PHENIX Collaboration], Scaling Properties of Azimuthal Anisotropy in Au+Au and Cu+Cu Collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. Lett. **98**, 162301 (2007).
- NP-44. A. Adare *et al.* [PHENIX Collaboration], Energy Loss and Flow of Heavy Quarks in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. Lett. **98**, 172301 (2007).
- NP-45. S.S. Adler *et al.* [PHENIX Collaboration], Centrality Dependence of π^0 Production at Large Transverse Momentum in $\sqrt{s_{NN}} = 200$ GeV d+Au Collisions. Phys. Rev. Lett. **98**, 172302 (2007).
- NP-46. S.S. Adler *et al.* [PHENIX Collaboration], Production of ω mesons at large transverse momenta in p+p and d+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. C **75**, 051902(R) (2007).
- NP-47. S. Afanasiev *et al.* [PHENIX Collaboration], Correlated production of p and p in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Lett. B **649**, 359 (2007).
- NP-48. A. Adare *et al.* [PHENIX Collaboration], J/psi Production vs Centrality, Transverse Momentum, and Rapidity in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. Lett. **98**, 232301 (2007).
- NP-49. A. Adare *et al.* [PHENIX Collaboration], System Size and Energy Dependence of Jet-Induced Hadron Pair Correlation Shapes in Cu+Cu and Au+Au Collisions at $\sqrt{s_{NN}} = 200$ and 62.4 GeV. Phys. Rev. Lett. **98**, 232302 (2007).
- NP-50. S.S. Adler *et al.* [PHENIX Collaboration], Measurement of density correlations in pseudorapidity via charged particle multiplicity fluctuations in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. C **76**, 034903 (2007).
- NP-51. S.S. Adler *et al.* [PHENIX Collaboration], Detailed study of high - P_T neutral pion suppression and azimuthal anisotropy in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. C **76**, 034904 (2007).
- NP-52. A. Adare et al. [PHENIX Collaboration], Transverse momentum and centrality dependence of dihadron correlations in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV: Jet-quenching and the response of partonic matter. Phys. Rev., C **77**, 011901(R) (2008).
- NP-53. S. S. Adler et al. [PHENIX Collaboration], Centrality dependence of charged hadron production in deuteron+gold and nucleon+gold collisions at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. C **77**, 014905 (2008).
- NP-54. A. Adare et al. [PHENIX Collaboration], Cold Nuclear Matter Effects on J/ψ as Constrained by Deuteron-Gold Measurements at $\sqrt{s_{NN}} = 200$ GeV. Phys. Rev. C **77**, 024912 (2008).
- NP-55. S. Afanasiev et al. [PHENIX Collaboration], Source breakup dynamics in Au+Au Collisions at $\sqrt{s_{NN}} = 200$ GeV via three-dimensional two-pion source imaging. Phys. Rev. Lett. **100**, 232301 (2008).

- NP-56. A. Adare et al. [PHENIX Collaboration], Quantitative Constraints on the Opacity of Hot Partonic Matter from Semi-Inclusive Single High Transverse Momentum Pion Suppression in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. *Phys. Rev. C* **77**, 064907 (2008).
- NP-57. A. Adare et al. [PHENIX Collaboration], Dihadron azimuthal correlations in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. *Phys. Rev., C* **78**, 014901 (2008).
- NP-58. S. Afanasiev et al. [PHENIX Collaboration], Particle-species dependent modification of jet-induced correlations in Au+Au collisions at $\sqrt{s_{NN}} = 200$ GeV. *Phys. Rev. Lett.* **101**, 082301 (2008).
- NP-59. A. Adare et al. [PHENIX Collaboration], J/ψ Production in $\sqrt{s_{NN}} = 200$ GeV Cu+Cu Collisions. *Phys. Rev. Lett.* **101**, 122301 (2008).
- NP-60. A. Adare et al. [PHENIX Collaboration], Charged hadron multiplicity fluctuations in Au+Au and Cu+Cu collisions from $\sqrt{s_{NN}} = 22.5$ to 200 GeV, *Phys. Rev., C* **78**, 044902 (2008).
- NP-61. A. Adare et al. [PHENIX Collaboration], Onset of π^0 Suppression Studied in Cu+Cu Collisions at $\sqrt{s_{NN}} = 22.4$, 62.4, and 200. *Phys. Rev. Lett.* **101**, 162301 (2008).

== (12 PF) Particles and Fields: p+p Collisions and Spin Physics

- PF-1. S.S. Adler et al. [PHENIX Collaboration], Mid-rapidity neutral pion production in proton proton collisions at $\sqrt{s} = 200$ GeV. *Phys. Rev. Lett.* **91**, 241803 (2003).
- PF-2. S.S. Adler et al. [PHENIX Collaboration], J/ψ production from proton proton collisions at $\sqrt{s} = 200$ GeV. *Phys. Rev. Lett.* **92**, 051802 (2004).
- PF-3. S.S. Adler et al. [PHENIX Collaboration], Double Helicity Asymmetry in Inclusive Mid-Rapidity π^0 Production for Polarized p+p Collisions at $\sqrt{s} = 200$ GeV, *Phys. Rev. Lett.* **93**, 202002 (2004).
- PF-4. S.S. Adler et al. [PHENIX Collaboration], Mid-rapidity direct-photon production in p+p collisions at $\sqrt{s} = 200$ GeV. *Phys. Rev. D* **71** (R), 071102, (2005).
- PF-5. S.S. Adler et al. [PHENIX Collaboration], Measurement of transverse single-spin asymmetries for mid-rapidity production of neutral pions and charged hadrons in polarized p+p collisions at $\sqrt{s} = 200$ -GeV, *Phys. Rev. Lett.* **95**, 202001 (2005).
- PF-6. S.S. Adler et al. [PHENIX Collaboration], Single electrons from heavy flavor decays in p+p collisions at $\sqrt{s} = 200$ -GeV, *Phys. Rev. Lett.*, **96**, 032001 (2006).
- PF-7. S. S. Adler et al. [PHENIX Collaboration], Improved measurement of double helicity asymmetry in Inclusive midrapidity π^0 production for polarized p + p collisions at $\sqrt{s}= 200$ GeV, *Phys. Rev. D* **73**, 091102 (R) (2006).
- PF-8.** A Adare et al, [PHENIX Collaboration], Jetproperties from dihadron correlations in p + p collisions at $\sqrt{s}=200$ GeV, *Phys. Rev. D* **74**, 072002 (2006).
- PF-9. S.S. Adler et al. [PHENIX Collaboration], Measurement of High-p_T Single Electrons from Heavy-Flavor Decays in p+p Collisions at $\sqrt{s} = 200$ GeV, *Phys. Rev. Lett.* **97**, 252002 (2006).
- PF-10. S.S. Adler et al. [PHENIX Collaboration], Measurement of Direct Photon Production in p+p Collisions at $\sqrt{s} = 200$ GeV. *Phys. Rev. Lett.* **98**, 012002 (2007).
- PF-11. A. Adare et al. [PHENIX Collaboration], J/ψ Production vs Transverse Momentum and Rapidity in p+p Collisions at sqrt(s) = 200 GeV. *Phys. Rev. Lett.* **98**, 232002 (2007).
- PF-12. A. Adare et al. [PHENIX Collaboration], Inclusive cross section and double helicity asymmetry for π^0 production in p+p collisions at $\sqrt{s}=200$ GeV: Implications for the polarized gluon distribution in the proton. *Phys. Rev. D*, **76**, 051106(R) (2007).
- PF-13. S.S. Adler et al, [PHENIX Collaboration], Measurement of single muons at forward rapidity in p+p collisions at sqrt(s)=200 GeV and implications for charm production. *Phys. Rev. D* **76**, 092002 (2007)

== (2 DD) Detector Development

- DD-1. B. Libby, A. Chikanian, S. Coe, J. Dunlop, W. Guryan, J.C. Hill, B. Johnson, S. Kumar, Y. Makdisi, J. Nagle, E. O'Brien, N. Smirnov, Particle identification in TEC/TRD Prototypes for the PHENIX detector at RHIC, *Nucl. Instrum. Methods A* **367**, 244-247 (1995).
- DD-2. K. Adcox et al. [PHENIX Collaboration], PHENIX detector overview. *Nucl. Instrum. Meth.* **A499**,

469 (2003).

==== (7 BP) Beam Physics: Ion Source Development

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